

Docket No. 3912E (DIV)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Applicant: Hoke, et al.
Serial No.: 09/766,723
Date Filed: January 22, 2001
Title: METHOD AND APPARATUS FOR TREATING THE ATMOSPHERE
Art Unit:
Examiner:

April 20, 2001

Commissioner for Patents
United States Patent and Trademark Office
Washington, DC 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120:

Serial No.: 08/589,032
Filing Date: January 19, 1996

Serial No.: 08,549,996
Filing Date: October 27, 1995

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Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence (along with any paper referenced as being attached or enclosed) is being deposited on the date shown below with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, United States Patent and Trademark Office, Washington, DC 20231.

Date: April 20, 2001

Phyllis Nova

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

- (a) _____ Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.
- (b) _____ Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".
- (c) _____ Abstracts by recognized library services.

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

- (a) X Within 3 months of the filing date or date of entry into the National Stage.
- (b) _____ Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 05-1070 for consideration of this Statement.
- (c) _____ After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance (37 C.F.R. 1.97(c)).
 - (1) _____ The required certification is given below, or
 - (2) _____ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or
 - (3) _____ Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 05-1070.
- (d) _____ After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. Petition hereby is made for consideration of this Statement and the required certification is indicated below.

- (1) _____ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(i)(1), or
- (2) _____ Charge the fee set forth in 37 C.F.R. 1.17(i)(1) to Deposit Account No. 05-1070.

4. Certification (if applicable)

- (a) _____ The undersigned hereby certifies that each item of information contained in a communication from a foreign patent office was cited by the foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.
- (b) _____ The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

5. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 05-1070.

Respectfully Submitted,

By Richard A. Negin
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Reg. No. 28,649

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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT & TRADEMARK OFFICEFORM PTO-1449
STATEMENT OF DISCLOSURE
BY APPLICANT

ATTY DOCKET NO. 3912E (DIV)

SERIAL NO. 09/766,723

APPLICANT: Hoke, et al.

FILING DATE: January 22, 2001

GROUP:

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	3,738,088*	1/12/73	Colosimo, Louis E.	55/104	
	4,134,860*	1/16/79	Hindin, et al.	252/466	
	4,343,776*	8/10/82	Carr, et al.	423/210	
	4,405,507*	9/20/83	Carr, et al.	252/466	
	4,714,694*	12/22/87	Wan, et al.	502/304	
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	5,057,483*	10/15/91	Wan, Chung-Zong	502/304	
	5,139,992*	8/18/92	Tauster, et al.	502/304	
	5,145,822*	9/8/92	Falke, et al.	502/150	
	5,147,429*	9/15/92	Bartholomew, et al.	55/356	
	5,283,041*	2/1/94	Nguyen, et al.	423/240	
	5,308,591*	5/3/94	Whittenberger, William A.	422/174	
	5,317,869*	6/7/94	Takeuchi, Yukihsa	60/300	
	5,340,562*	8/23/94	O'Young, et al.	423/599	
	5,422,331*	6/6/95	Galligan, et al.	502/333	

*submitted with previously filed related IDS

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Examiner Initial	Document number	Publication Date	Country or Patent Office	Class	Translation	
					Yes	No
	DE 40 07 965 C2*	10/03/94	Germany			
	DE 43 18 738 C1*	14/07/94	Germany			
	WO 94/27709*	08/12/94	PCT			
	WO 96/22150	25/07/96	PCT			
	WO 97/11769	03/04/97	PCT			

*submitted with previously filed related IDS



FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E (DIV)	SERIAL NO. 09/766,723
	APPLICANT: Hoke, et al.	
	FILING DATE: January 22, 2001	GROUP:

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

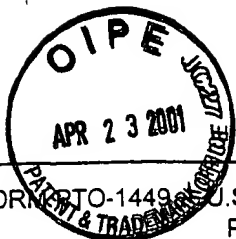
	O'Young, Hydrothermal Synthesis of Manganese Oxides with Tunnel Structures, Modern Analytical Techniques for Analysis of Petroleum, presented at the Symposium on Advances in Zeolites and Pillared Clay Structures before the Division of Petroleum Chemistry, Inc. American Chemical Society New York City Meeting, August 25-30, 1991 beginning at page 348 *
	McKenzie, the Synthesis of Birnessite, Cryptomelane, and Some Other Oxides and Hydroxides of Manganese, Mineralogical Magazine, December 1971, Vol. 38, pp. 493-502*

*submitted with previously filed related IDS

Examiner	Date Considered
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE STATEMENT PTO-1449 (Modified)



FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E(DIV)	SERIAL NO. 09/766,723
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U.S. PATENT DOCUMENTS

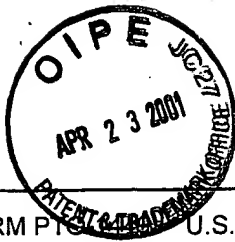
Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	3,738,088*	1/12/73	Colosimo, Louis E.	55/104	
	3,859,788*	1/14/75	King, et al.	60/280	
	4,195,606*	4/1/80	Wallis, Jr., et al.	123/119	
	4,670,474*	6/2/87	Hinnenkamp, et al.	518/713	
	5,113,836*	5/19/92	Sweeten, Theodore P.	123/573	
	5,130,109*	7/14/92	Wan, Chung-Zong	423/213	
	5,145,822*	9/8/92	Falke, et al.	502/150	
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	5,250,487*	10/5/93	Wirtz, et al.	502/243	
	5,252,299*	10/12/93	Retallick, William B.	422/174	
	5,283,041**	1/1/94	Nguyen, et al.	423/240	
	5,433,772*	7/18/95	Sikora, David	96/87	
	Atty. Docket # 7291.02*		Brown, Leo K.		

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					Yes	No
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	DE 25 49 621 A1 *	5/12/77	Germany	H01M 4/90		X
	DE 30 19 828 *	11/27/80	Germany	C09D 7/12	X	
	DE 33 34 992 A1 *	4/25/85	Germany	B60H 3/00		X
	DE 37 13 035 A1 *	10/27/88	Germany	B65D 90/28		X
	DE 40 07 964 A1*	9/19/91	Germany	B01J 23/72		X
	DE 40 07 965 A1*	9/19/91	Germany	B01J 23/84		X
	DE 40 07 965 C2 *	3/10/94	Germany	B01J 23/72	X	
	DE 43 18 738 C1*	7/14/94	Germany	B01D 53/36		X
	DE 94 15 457.0*	1/5/95	Germany	B01D 53/86		X
	WO 95/22395 *	8/24/95	PCT	B01D 57/75	X	

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FORM PTO-100 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E (DIV)	SERIAL NO. 09/766,723
	APPLICANT: Hoke, et al.	
	FILING DATE: January 22, 2001	GROUP:

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	4,399,185 *	08/16/83	Petrow	428-253	
	5,187,137 *	02/16/93	Terui et al.	502-241	
	5,620,672 *	04/15/97	Galligan et al.	423-219	

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					Yes	No

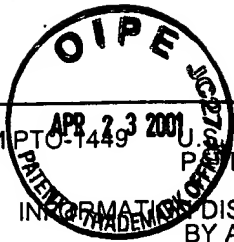
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INFORMATION DISCLOSURE STATEMENT PTO-1449 (Modified)



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Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate	
	WO 96/09109 *	3/28/96	PCT	B01D 53/88	X	
	WO 96/22146 *	7/25/96	PCT	B01D 53/68	X	
	WO 96/22148 *	7/25/96	PCT	B01D 53/88	X	
	EP 097 287 *	1/4/84	EPO	F28D 1/04		X
	EP 186 477 *	7/2/89	EPO	F24F 3/12	X	
	EP 351 036 *	1/17/90	EPO	B01J 35/02	X	
	EP 373 648 *	6/20/90	EPO	B01D 53/36	X	
	EP 470 330 A1 *	2/12/92	EPO	F02M 35/024		X
	EP 537 815 *	4/21/93	EPO	C10G 47/14	X	
	JP 4110045 *	4/10/92	Japan	B01D 53/36	X	
	JP 4297341*	10/21/92	Japan	B60P 3/00	X	
	JP 5023590 *	2/2/93	Japan	B01D 53/36	X	
	JP 5038443 *	2/19/93	Japan	B01J 23/89	X	
	JP 52148468 *	12/9/77	Japan	B01D 53/34	X	
	JP 55106813*	8/17/80	Japan	B60H 1/24	X	
	JP 56059671*	5/23/81	Japan	B01J 20/06	X	
	JP 57122924*	7/31/82	Japan	B01D 53/36	X	
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	GB 2 110 174 A*	6/15/83	United Kingdom	B60K 13/02		
	GB 2 218 354 A*	11/15/89	United Kingdom	B01D 50/00		

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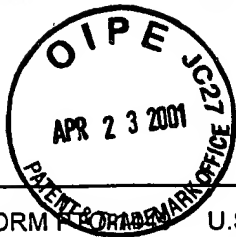
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	Mark, et al., Kirk-Othmer Encyclopedia of Chemical Technology, Ed. 3, Vol. 5, Castor Oil to Chlorosulfuric Acid, 1989, Wiley & Sons, NY, pgs. 22-23, 40, 49-51 *
	Gerhartz, et al., Ullmann's Encyclopedia of Industrial Chemistry, Ed. 5, Vol. A5, Cancer Chemotherapy to Ceramic Colorants, 1986, VCH Verlag, De. Weinheim, pgs. 336, 347-353*

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FORM 1 PATENT & TRADEMARK OFFICE U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E (DIV)	SERIAL NO 09/766,723
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REFERENCE DESIGNATION			U.S. PATENT DOCUMENTS		
Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	3,738,088*	6/12/73	Colosimo, Louis E.	55/104	
	5,145,822*	9/8/92	Falke, et al.	502/150	

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FOREIGN PATENT DOCUMENTS

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	DE 40 07 964 A1 *	9/19/91	Germany	B01J 23/72		X
	DE 40 07 965 A1*	9/19/91	Germany	B01J 23/84		X
	DE 94 15 457.0 *	1/5/95	Germany	B01D 53/86		X
	WO 96/09109 *	3/28/96	PCT	B01D 53/88		X
	WO 93/05821 *	4/1/93	PCT	A61L 9/20	X	
	WO 90/11433 *	10/4/90	PCT	F01N3/10	X	
	JP55106813*	8/17/80	Japan	B60H 1/24	X	
	DE 43 18 738 C1*	7/14/94	Germany	B01D 53/36		X

related

*copy submitted with previously sent information Disclosure Statement

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	4,207,291*	6/10/80	Byrd, et al.	422/122	
	4,379,129*	4/5/83	Abe, Akira	423/210	
	5,080,882*	1/14/92	Yoshimoto, et al.	423/579	
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*submitted with previously filed related IDS

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document number	Publication Date	Country or Patent Office	Class	Translation	
					Yes	No
	DE 40 17 892 A1 *	5/12/91	Germany	B01J 23/89		X
	GB 2 056 424 A *	3/18/81	United Kingdom	B01D 53/36		
	JP405007776 A *	1/19/93	Japan	B01J 23/64		X

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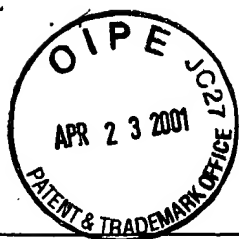
FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E (DIV)	SERIAL NO. 09/766,732
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Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	3,837,149 *	09/24/74	West et al.	55/269	
	3,864,118 *	02/04/75	Schumacher et al.	75/3	
	3,883,637 *	05/13/75	Benedict	423/230	
	3,915,837 *	10/28/75	Feige, Jr.	204/286	
	3,959,021 *	05/25/76	Nishino et al.	136/138	
	3,993,597 *	11/23/76	Stiles	252/454	
	4,006,217 *	02/01/77	Faber et al.	423/605	
	4,007,875 *	02/15/77	Stolz et al.	237/12.3 A	
	4,089,928 *	05/16/78	Foroglou	423/49	
	4,101,296 *	07/18/78	Lowther	55/33	
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	4,173,549 *	11/06/79	Kent et al.	252/463	
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	4,200,609 *	04/29/80	Byrd	422/122	
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	4,246,253 *	01/20/81	Hunter	423/605	
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*submitted with previously filed related IDS



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Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	4,277,360 *	07/07/81	Mellors et al.	252/182.1	
	4,284,618 *	08/18/81	Van der Heyden et al.	423/605	
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	4,352,321 *	10/05/82	Fukui et al.	98/2.11	
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	4,590,059 *	05/20/86	Mellors	423/605	

*submitted with previously filed related IDS



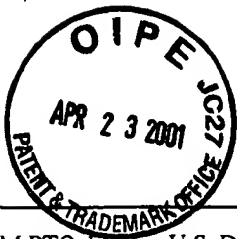
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	4,733,605 *	03/29/88	Hölter et al.	98/2.11	
	4,734,113 *	03/29/88	Takagi et al.	55/504	
	4,742,038 *	05/03/88	Matsumoto	502/303	
	4,818,354 *	04/04/89	Preisler et al.	204/96	
	4,824,363 *	04/25/89	Abthoff et al.	432/222	
	4,838,910 *	06/13/89	Stollenwerk et al.	55/385.2	
	4,871,709 *	10/03/89	Tatsushima et al.	502/324	
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	4,975,346 *	12/04/90	Lecerf et al.	429/197	
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	5,082,570 *	01/21/92	Higgins et al.	210/683	
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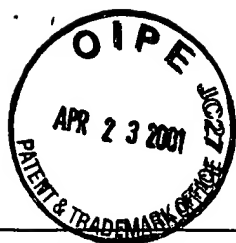
FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E (DIV)	SERIAL NO. 00/766,723
	APPLICANT: Hoke, et al.	
	FILING DATE: January 22, 2001	GROUP:

REFERENCE DESIGNATION

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Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
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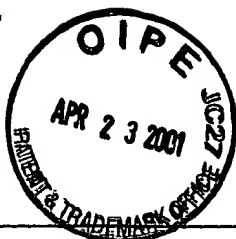
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FOREIGN PATENT DOCUMENTS

Examiner Initial	Document number	Publication Date	Country or Patent Office	Class	Translation	
					Yes	No

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

	Derwent Abstracts (see Attached) *
	Manganese Compounds, Vol. 15, pages 1003-1050. *

*submitted with previously filed related IDS

Examiner	Date Considered
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE STATEMENT PTO-1449 (Modified)



FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E (DIV)	SERIAL NO. 09/766,732
	APPLICANT: Hoke, et al.	
	FILING DATE: January 22, 2001	GROUP:

REFERENCE DESIGNATION

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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY DOCKET NO. 3912E (DIV)	SERIAL NO. 09/766,732
	APPLICANT: Hoke, et al.	
	FILING DATE: January 22, 2001	GROUP:

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document number	Publication Date	Country or Patent Office	Class	Translation	
					Yes	No
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	Additives for Dispersion Technology, published by Rhone Poulenc. *

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FORM PTO-1449 U.S. DEPT. OF COMMERCE
PATENT & TRADEMARK OFF.

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

ATTY DOCKET NO.3912E(DIV)

SERIAL NO.09/766,723

APPLICANT: J. B. Hoke, et al

FILING DATE: Jan.22,2001

GROUP:

REFERENCE DESIGNATION

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					Yes	No
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Examiner Initial	Document number	Publication Date	Country or Patent Office	Class	Translation	
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	H 6-13204 *	1/21/94	Japan		✓	
	H 4-176316 *	6/24/92	Japan		✓	
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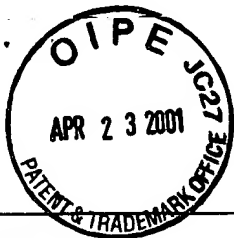
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

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	SAE 931089 Charge Air Cooler for Passenger Cars by thierry Collette of Valeo Thermique Moteur, 1993*
	SAE 931092 State of the Art & Future Developments of Aluminum Radiators for Cars & Trucks by Josef Kern & Jochen Eitel of Behr GmbH & Co., 1993 *
	SAE 931112 Air Mix versus Coolant Flow to Control Discharge Air Temperature in Vehicle Heating and Air Conditioning Systems by Gary Rolling and Robert Cummings of Behr of America, Inc. and Gebhard Schweizer of Behr GmbH & Co., 1993 *
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	Bosch Automotive Handbook, Second Edition, Pages 301-03, 320 and 349-51 published by Robert Bosch GmbH, 1986 *
	Outside submission from Litman Law Offices, Ltd. in the Application of Leo K. Brown for an Environmental Air Filtration System for Vehicles *
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	O'Young, Hydrothermal Synthesis of Manganese Oxides with Tunnel Structures, Modern Analytical Techniques for Analysis of Petroleum, presented at Symposium on Advances in Zeolites and Pillared Clay Structures before the Division of Petroleum Chemistry, Inc., American Chemical Society, NYC Meeting, August 25-30, 1991 beginning at page 348 *
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	APPLICANT: Hoke, et al.	
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REFERENCE DESIGNATION

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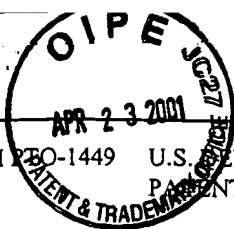
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					Yes	No

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ATTY DOCKET NO. 3912E (DIV) SERIAL NO. 09/766,732
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Examiner Initial	Document Number	Date	Name	Class	Filing Date if Appropriate
	1,484,782 *	02/26/24	Heise	No class	
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